

Hydrologic Forecast Tenmile Creek

CONDITIONS 05/10/2020

Lewis & Clark County Water Quality Protection District

SUMMARY

Since an early seasonal peak of 226 CFS on May 1st, Tenmile Creek has been dropping steadily. Snowpack at Frohner Meadows SNOTEL site is nearly gone with the recent warmer temps and, barring significant rain events, may signal a downward trend of streamflow for the season.

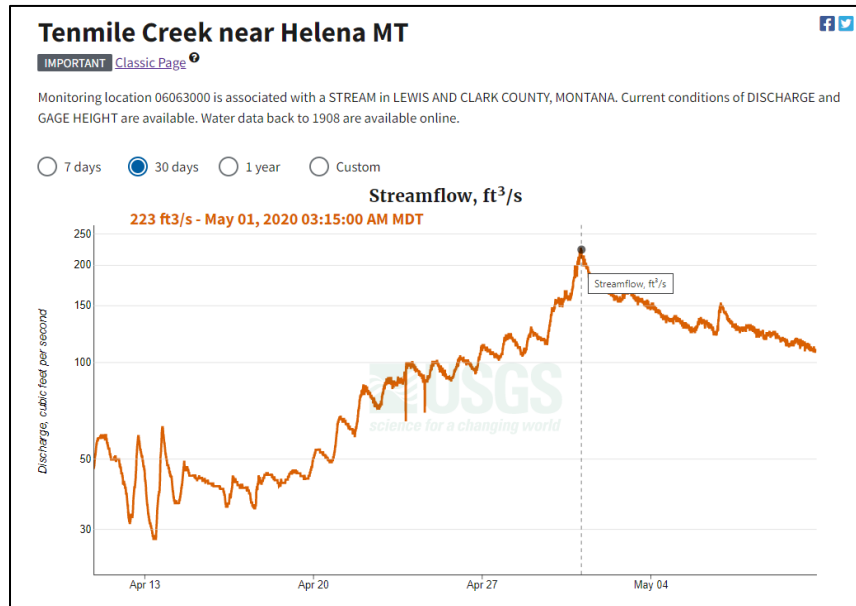
With cooler temperatures and precipitation forecast over the next week, the potential for precipitation-induced high flows is possible. Residents should keep track of weather patterns for increasing temperature and precipitation events which could change streamflows quickly, causing small creeks such as Tenmile Creek and Silver Creek to rise rapidly.

The following data and information is used to evaluate hydrologic conditions in the Tenmile Creek drainage. Hydrologic response of Tenmile Creek is predominantly a result of three factors.

1. **Streamflow** measured at Williams St USGS Stream Gauging Station west of the city of Helena
<https://waterdata.usgs.gov/monitoring-location/06063000>
 2. **Snowpack** snow water equivalent (SWE) at the Frohner Meadow SNOTEL Station west of Augusta
<https://www.nwrfc.noaa.gov/snow/snowplot.cgi?FRHM8>
 3. Short-term Helena 5-day weather (**precipitation and temperature**) projection from the National Weather Service
<https://forecast.weather.gov/MapClick.php?lat=46.5924&lon=-112.0403#.XpoTqkZKjBQ>
-

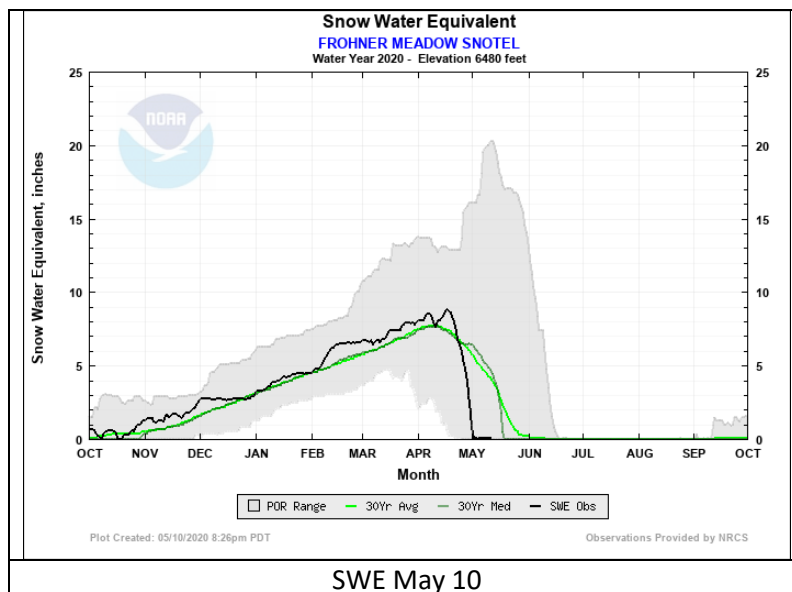
1. STREAMFLOW

Streamflow on Tenmile Creek over the past 30 days is shown below. Note May 1st peak with warm weather. Flows have been dropping since.



2. SNOWPACK (SWE)

SWE at Frohner Meadows is nearly gone at 0.10" which is at 2% of average. 30-yr average SWE is 4.2". Plots below show loss of Frohner Meadows snowpack (**black line**) in the past week.



3. WEATHER

Monday through next Thursday...Cooler temperatures and precipitation is forecast for the region through Thursday. Snow is likely at lower elevations with >4" of snow at higher elevations.